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## Delta Independent Science Board

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April 22, 2015

To: Delta Stewardship Council  
From: Delta Independent Science Board  
Subject: Drought and Opportunity

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As California and the Delta move more deeply into the fourth year of historically unprecedented drought, unprecedented actions are being contemplated to deal with its effects. These actions—drought barriers to hold salinity intrusion at bay, changes in the amount and timing of upstream releases, restrictions on exports, and the like—will affect water flows in and through the Delta. These management actions are adaptive responses to the growing challenges of maintaining water quality and availability to people and ecosystems. Thus, they present an extraordinary opportunity to conduct a real-world assessment of adaptive management.

We see the immediate utility of casting such actions in the context of adaptive management, including:

- Using the adaptive management framework in the Delta Plan to evaluate the effects of the actions. Are they working as planned? Are there unintended consequences?
- Testing the adaptive-management process. What do these actions tell us about the feasibility of implementing adaptive management in times of crisis when there is limited time and finite staff time for planning?
- Learning what we can to (a) help redress the growing conflict over water, (b) to help move the dialogue and responses beyond a '*people or fish*' or '*us versus them*' debate that resolves nothing.

The Delta Independent Science Board (DISB) is legislatively charged with evaluating science in support of adaptive management. We urge that this rare opportunity not be wasted. We recommend that the following be included in the drought response this year:

- Targeted monitoring of key physical, chemical, and biological components must be included as an essential part of the planning and implementation of the drought management actions;
- Ongoing studies that may bear on the consequences of these actions need to be coordinated, perhaps under the auspices of the Interagency Ecological Program and/or the Delta Science Program;
- These and future management responses to the drought be considered as exercises in adaptive management from which we can learn valuable lessons about both the consequences and effectiveness of the actions and the usefulness of the adaptive-management process.